

Digital Industry Report

On

The Digital Music Industry



By Leon Quinn

Table of contents

[Introduction](#)

[Digital Music Review](#)

[Where is the Digital Music Industry at today?](#)

[Facts & Figures](#)

[Streaming](#)

[Downloading](#)

[Physical Formats](#)

[Performance Rights](#)

[Major “Players” \(pun intended!\)](#)

[Reasons for Growth of Digital](#)

[The Birth of Digital Music](#)

[Music Format Timeline](#)

[MP3](#)

[Early Music Streaming Services](#)

[Digital Music Impact](#)

[Effects of Digital Music?](#)

[Illegal Downloading](#)

[Effects On Physical Formats](#)

[Financial Effects](#)

[Artistic Effects](#)

[Audiophiles & Quality Issues](#)

[Effects on Musicians](#)

[Digital Music Evolution](#)

[The Future](#)

[Technology](#)

[Markets & Money](#)

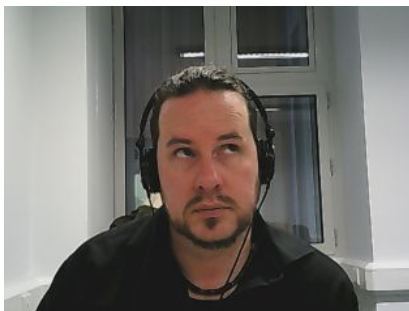
[Backlash](#)

[Conclusion](#)

Introduction

I chose this area to base my Digital Industry research piece on because I am a music lover and former musician and songwriter. I still dabble a bit with the playing side but mostly I'm an avid music listener and fan these days and listen to music on my headphones almost constantly while in my shared and noisy office. During my own relatively short lifespan I have experienced music in the form of Vinyl, Tape, CD, MiniDisc, CD, MP3 and now Digital Streaming via the Internet and I am always amazed that these days you can have pretty much any song, from any artist, genre or time right at your fingertips in a matter of seconds and all for either FREE or next to nothing. I've also been very impressed with current music streaming service's ability to suggest new music and artists to me based on what I've listened to previously. In recent years I've found and grown to love many new artists this way.

PS - I'm writing this report while listening to "Tears for Fears Radio", a nostalgic selection of songs from the band of the same name and those 80s artists deemed similar by Google, on my €14.99 per month Google Play family package. You can't do that on Vinyl!?



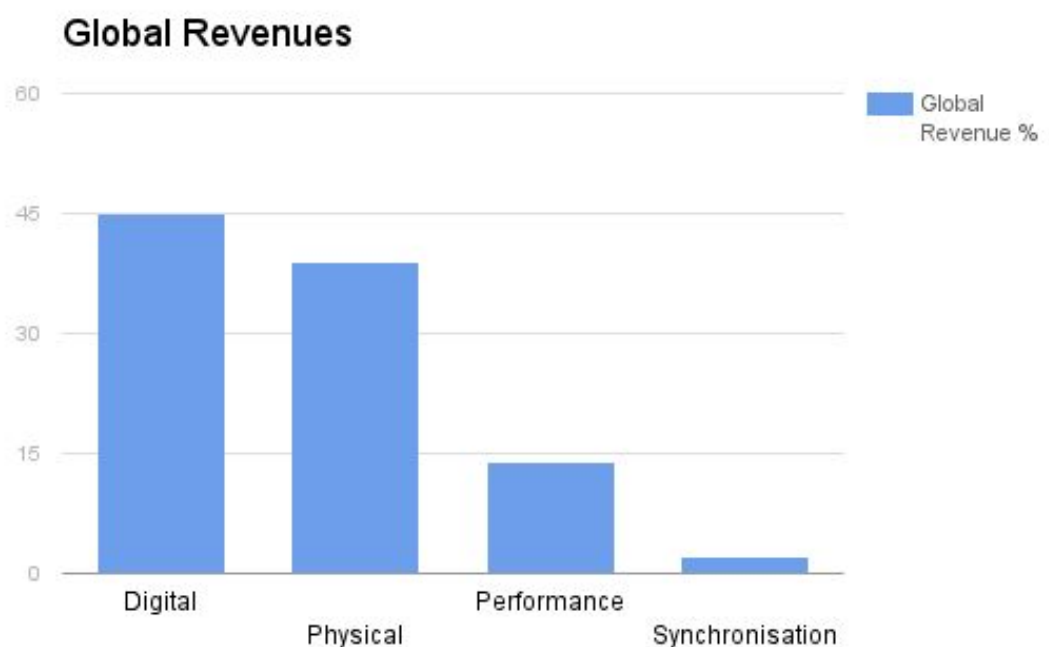
Leon Quinn

Digital Music Review

Where is the Digital Music Industry at today?

Facts & Figures

Last year in 2015 the global Digital Music Industry reached an important milestone when digital became the primary revenue stream for recorded music for the first time, relegating physical format sales to second place. Digital revenues have risen 10.2% in the last year, generating a total global revenue of \$6.7 billion. This is the first significant, year on year growth of digital this millennium and evidence of the widespread acceptance of digital music by both producers and consumers after a hard fought and long evolutionary period which covered the transition from much loved physical formats such as Vinyl, Tape and CD through the difficult illegal downloading period to today:

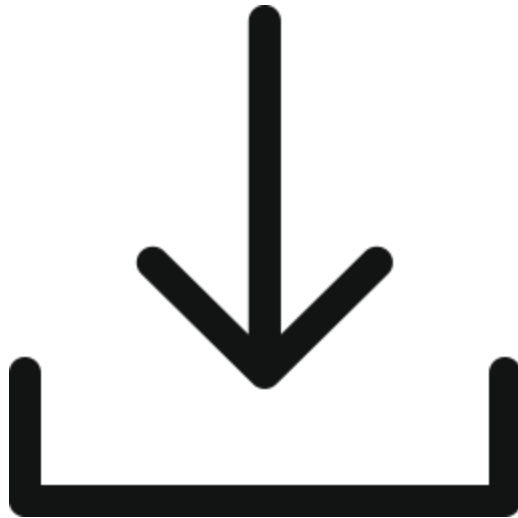


Streaming



This is the digital music industry's fastest growing revenue source with an increase of 45.2% over the last 5 years. Monthly streaming plans where you pay a subscription (usually around €9.99 per month) to access a vast array of music have become very popular with an estimated 68 million people globally paying for such subscriptions. Both WiFi and internet data plans have become fast enough to stream high quality music from almost any location, both urban and rural. This music is most often accessed through a smartphone or portable player which most people seem to have these days.

Downloading



At the same time that streaming has been increasing, downloads have been decreasing with an estimated 10.5% drop since 2014 although full album downloads which often include extras such as album artwork and video have remained popular.

Physical Formats



Revenues from physical formats such as CD are declining steadily (10.6% since 2013) but at a slower rate recently than in previous years. Physical formats are still number one in a number of large markets such as Japan and Germany. Interestingly, some formats which may have been considered obsolete years ago such as Vinyl and Tape are gaining in popularity in some small way at least.

My own personal opinion on this is that there is a craving from some people at least occasionally to get away from the impersonality of electronic music and hold an actual physical copy of something. I believe this may be a nostalgic nod to the past more than anything and may pass or at least remain a small market for purists only. For instance, I personally was never a fan of too easily scratched CDs or to go one step further even, modern music recording methods in general, preferring instead the “warmer” tone of Vinyl or older music recorded on reel to reel recorders and played through valve powered amplifiers. CD and Electronic formats can sound almost too good or too clinical and you end up longing for the imperfections and the pops and hisses of something like vinyl. Despite that though, I’m personally more than happy to forget those luxuries and their associated costs in favour of ease of access, easier and more logical storage, lower costs and better new music discovery.

Performance Rights



Perhaps surprisingly, revenue from performance rights, ie - revenue generated through the use of recorded music by everyone from radio and tv broadcasters to entertainment venues and supermarkets still remains high and growing with a growth of 10% since 2011. Surprising in that I wouldn't have felt there was a need to provide people with music when they can access it just as easily themselves?

Major “Players” (pun intended!)

The current major players for the top revenue earning sectors of streaming and downloading are (in no particular order):



Price: €9.99 pm

Catalogue Size: 30 million

Platforms: Android, iOS, Web

Features: 320kbps Streaming Quality, Offline playback, Radio, Playlists, Download, Upload

My music streaming platform of choice having used all of the ones mentioned here. I prefer it to the others as it has a simpler, cleaner and more expansive design. It has Google behind it too and I’m a Google fanboy, using a lot of their other services such as email, calendar, drive, etc.. on a daily basis for both personal and work reasons. Also, it has a family subscription service for €14.99 per month which allows up to 6 family members use the service from the same account. It has a very generous three month FREE trial mode too.



Price: €9.99 pm for a Pro account with no ads

Catalogue Size: 30 million

Platforms: Android, iOS, BlackBerry, OS X, Windows

Features: 320kbps Streaming Quality, Offline playback, Radio, Playlists, Download, Upload, Social Media connection.

Spotify is the oldest of the featured streaming services here (since 2008) and seems to win most of the online polls as to people's preferred streaming service. Perhaps because it has a decent FREE, ad supported mode and also because it has a few more features than the others including its famous "Radio" feature which suggests new artists to you similar to what you've listened to before, uploaded or added to playlists. I've found some great new music and artists this way. It also has a connection with Facebook that shows you what your Facebook friends are listening to and vice versa.



Price: €9.99 pm

Catalogue Size: 30 million

Platforms: Android, iOS, OS X, Windows

Features: 256kbps Streaming Quality, Offline playback, Radio, Playlists, Download, Upload

Apple music is my least favourite streaming service. I only signed up to it because I got it half price with my college student card. It has no web player unlike the rest and uses the slow, bloated, buggy and clunky iTunes desktop player which has very few features and poor user design. Their phone app is a little better though. It's the newest of the services arriving mid way through 2015 so time to improve perhaps.



Price: FREE

Catalogue Size: No data available but it's BIG!

Platforms: Android, iOS, OS X, Windows

Features: Music, Video, Radio, Upload, Favourites, Video History, Search

While not technically a music streaming or downloading service, YouTube gets an honorable mention here as it's by far the world's biggest, as in most users, music streaming service with well over 1 Billion regular users. You can stream music videos completely for free on any device and I love the way it continues to show similar videos after your chosen one on a seemingly endless loop. You can discover some great new artists and content this way. YouTube Red is a new paid music streaming subscription service that was launched recently but it basically piggy backs on Google Play Music.

Reasons for Growth of Digital



The reasons for this switch from physical to digital are fairly obvious to most people with even a passing interest in modern technology. Increased availability of both portable electronic devices with music playback capability such as smartphones and MP3 players, ubiquitous internet access and affordability of both music and internet plans from all the major players have made it easy for all to access music. Indeed, access to music can be completely free for some of biggest consuming sectors such as young kids and teenagers when you look at free WiFi and sites like YouTube. Although this doesn't generate revenue directly of course except in the case of

in-video advertising, which is actually quite lucrative for YouTube especially with the fairly recent advent of advertising on mobile.

The Birth of Digital Music

Music Format Timeline



Phonograph Cylinder

There have been a bewildering array of music formats over the centuries since music first came recorded via the “Phonautogram” (Nope, I never heard of it either!?) in 1860 and the more well known Phonograph (above) in 1877 to today’s multitude of digital formats and codecs such as HD, SILK & OPUS, a lot of which I’ve never

heard of either. However, in the interests of brevity, I'm going to concentrate on my own recollection of how music was delivered to me personally from the mid 1970's to now which will include some of the more popular, widely known and accessible formats:



My Music Format Timeline

My first experience of recorded music formats apart from the radio around the late 1970s was listening to my grandparents Vinyl collection. It was mostly Opera and Classical stuff and some of it was on ceramic disc, never mind Vinyl! I still have a lot of these at home as it happens. I played them through a large coffin shaped piece of audio furniture we had in our parlour which also had a radio tuner with radio Luxembourg etc..



My First Cassette Tape

The very first music I sourced myself was a 4 song tape of 80's hits (above) which I got with Weetabix tokens. I also still have this! I then amassed a fairly large collection of purchased Tape cassettes with my teenage year pocket money in the early 90s, mostly artist albums, moving on then to digital CDs in the late 90s and early 00s. CDs of course were the first widely used consumer digital music format. I still have my tape and CD collections too. Are you noticing a trend!? I keep stuff..

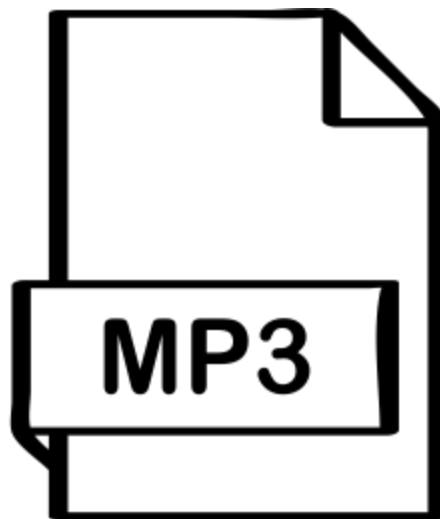


MiniDisc

I want to quickly mention MiniDiscs (above) here. A mysterious and short lived digital format that popped up after CDs in about 1993 and about the same time that MP3 came about. I think of MiniDiscs as a cross between Cassette Tapes and CDs in that they had a hard protective outer case that resembled a tape but had a mini CD inside. The best two things about them were that you could record 80 minutes of high quality digital audio onto them unlike CDs (until the advent of home computers with rewritable drives) but they were pretty much unscratchable like regular CDs because of the outer casing. There was also a data MiniDisc version which could hold 1GB of audio files. I have some great gig recordings from the likes of Van Morrison at the Olympia in Dublin, recorded on my friend's portable MiniDisc recorder.

I'm not sure why they never took off but it might have been something to do with the requirement for another playback device and even though portable MiniDisc players were available, they had to compete with Walkmen and Discmen and maybe there were just too many devices. They also took an eventual back seat to MP3s along with all other physical formats too of course. I only ever bought 1 MiniDisc album, "The Byrds" Greatest Hits. Yep, I still have it. Hopefully these things will be worth something someday!?

MP3



The very first digital music format to gain widespread use was the MP3 or the "Moving Picture Experts Group Audio Layer Three" to give it its full and ridiculously long title. Invented in 1989 in Germany as a method of music storage and playback that converts audio into digital files and in the process compresses its size with little loss of quality. However it wasn't until 1997 that MP3 became widely used when Tomislav Uzelac created the MP3 playback engine and computer software Winamp, which I personally remember using both to play music and broadcast my very own "internet streaming radio station". I once had five listeners tune in at the same time! This came just in time for Napster to take full advantage as MP3 became its preferred distribution format. Ever since then, MP3 has become the worldwide industry standard for digital music playback, with its only real competition coming in

the last few years with the emergence of other audio codecs which have smaller file size but better sound quality such as AAC.

Of course with the advent of affordable home computers, laptops and later, portable MP3 playing devices and fast internet, the MP3 reached a whole new level of usage which was to become the current digital music revolution we are experiencing.

Early Music Streaming Services



IUMA

In 1993 the Internet Underground Music Archive (IUMA) launched as a free online archive of downloadable MP3s, designed to allow unsigned artists share their music and connect with fans without the need for a record label.



This was followed in the late 90s by a slew of similar music sharing services mostly for unsigned acts such as LastFM (above), SoundCloud, BandCamp, MySpace and ReverbNation before current market leader Spotify was launched in 2008 with the mandate of tackling the issues of music piracy. Rather than get paid per download, Spotify planned to pay its catalogue artists per play and fund this with advertising in their free version. Initially artists complained about very low royalty cheques coming from Spotify despite getting hundreds of thousands of plays but as Spotify became extremely popular with the music listening public, I think artists began to realise it was better to have their music out there being listened to for very little income rather than have no one know about it at all. They would then make their money from physical format sales, concerts and merchandise etc..

Digital Music Impact

Effects of Digital Music?

Illegal Downloading

I'll come clean here in the hope that I won't be ratted out at this late stage but shortly after I got my first PC in 2002, or to be more precise shortly after I met my future wife and realised the area she lived in in Dublin had been selected for a trial/pilot cable

broadband service from Chorus/NTL, I found myself using a file sharing app called Kazaa. Through that I realised I could download some of my favourite music without having to fork out money I didn't really have on hard copies. I still have CDs lying around somewhere with those downloaded songs burned to them.



Mix Cassette Tape

In truth, I and most other children of the 70's and 80's had probably been doing this kind of thing long before the internet was a thing. Remember recording off the radio on to tapes? Or copying whole tapes with a twin cassette deck system? With the advent of affordable computers with CD re-writing drives, we started copying full CDs & DVDs too. My point is, the propensity to source and consume illegal music was always there, it just went into overdrive when affordable computers and internet services hit the mainstream.



Napster, live since 1999 is often the first website or service that people think of when they think of illegal music downloading. It was similar to my Kazaa and Limewire in that it was a file sharing application where you downloaded songs from other people's computers essentially. Napster was shut down for copyright infringement in 2001 just before I bought my first PC so I never got to use it but it came back as a fully legal online music store around 2006 before being acquired by Roxio in 2011.

Napster turning legitimate was the first hint that this is the way the digital music industry would eventually go. In the mid to late 2000s there was a massive reluctance by artists to have their music online in any form. The obvious and understandable fear was that if it was online, then it could be easily ripped off or downloaded illegally. There were many high profile cases including Metallica's 2000 suing of Napster, the first case of it's kind in the world and which would be the beginning of the end for Napster as an illegal service



Radiohead

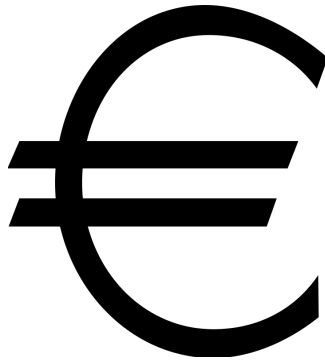
Also, famously, the band Radiohead (above) once offered a new album “In Rainbows” for free online, asking fans to pay whatever they felt the album warranted in an attempt to use reverse psychology on fans to generate income they thought they might be losing otherwise but also as a protest in response to feeling marginalised by record labels. I believe they might have done quite well from that album financially! I downloaded it without paying personally. It was instantly forgettable.

Pretty much every artist now has their entire collection available on streaming services so the illegal downloading fear has all but disappeared and even though it's as easy as ever to illegally download music, I for one, and obviously a lot of others too, don't mind paying the nominal fee and receiving the additional benefits this time around.

Effects On Physical Formats

As mentioned, it looks right now as if digital music has all but killed physical formats and even their playback devices except for some purists and nostalgia lovers who still like to fully sense their music. I would expect at some stage in the near future formats like CD will be discontinued as Cassette Tapes and MiniDiscs already have. I personally can't remember the last time I either purchased a CD or burned one on the computer. Even my car's CD player is fairly redundant as we stream music from our phones and monthly streaming services through the car's Bluetooth system. We also have bluetooth speakers in the house and WiFi devices that connect to the HiFi and TV to play our subscribed content through so my fabulous, purpose built HiFi separates system rarely gets a run out. Unless I plug the phone into it!

Financial Effects



While it's become much cheaper (unless you were and still are a very heavy illegal music downloader!) for the average music loving member of the public to access much greater amounts of music and much better ancillary or related services like playlisting, favouriting and social sharing, the effect on the wallets of the artists themselves may remain to be seen. As mentioned, artists made very little money from Spotify initially and I have been unable to find any research on what exactly artists make from services like Google Play and Apple Music but I suspect they are all similar to Spotify. I suspect that the bigger artists have contracts that make them decent money through streaming but it seems that music streaming is mostly about getting new music out there. However, they can potentially earn a decent income from the likes of YouTube advertising on their individual videos. One of the most watched YouTube videos ever "Gangnam Style" is believed to have earned its creator "Psy" and his record label over \$2 million simply from in video advertising.



I must also mention Vevo here as any time I go to watch a music video on YouTube it seems to come up under the Vevo channel. Vevo is a music video hosting service

and a joint venture between Universal Music, Warner and Sony, the big three record companies. Advertising revenue from Vevo video plays is shared with YouTube which syndicates its content.

Artistic Effects

Obviously artists can reach an exponentially larger audience by leveraging not just music streaming services but also having presences on some of the biggest social networking sites on the planet such as Facebook, Twitter and YouTube, all sites through which they can either stream or sell their music and in multiple methods from hard copy, to digital download, to streaming to video. And it's not just established artists who can avail of large marketing budgets from their own or their record company coffers but for new and upcoming bands, the potential to gain a following and get their music out there is greater than ever before.

Artists can also get feedback on their work easier and quicker than ever before and can keep in touch with fan sentiment and communicate with them also. This has the effect of fans feeling closer to their music heroes and helps them invest more in them both financially and emotionally.

Audiophiles & Quality Issues



HiFi System

In the early days of MP3 usage I used to hear a lot of audiophiles and purists giving out about the poor quality of MP3 and other digital codecs compared to physical formats and how they could never switch over personally. They also gave out about poor quality playback devices such as computers and portable players compared to high end HiFi systems. And there's no doubt there is a large quality difference even now still. The MP3 format is a little like the JPEG format for internet images. The basic idea is, you cut out the non essential data that no one ever really notices and compress the rest to show essentially the same image or play the same audio file but you make it easier and quicker to show, transport and store. In the instance of MP3s, the compression process might remove a lot of frequencies in the far upper and lower ranges, the ranges humans won't normally hear. Most people won't know the difference between the compressed and original files for either JPEG or MP3 but if you listen real close, high quality original music on physical format, played loud through a good system will have a little more "presence" and impact. Again, the majority of people including me have been happy to lose out on that a little in favour of the range of benefits digital audio brings.

Effects on Musicians



Speaking as a former musician who used to be in several cover bands around the turn of the century including a moderately successful Doors tribute act, the emergence of digital music made (or at least would have made if I hadn't quit just as the digital music revolution started!) my life a lot easier. I remember deciding on songs we were going to cover in the band and having to go home with a copy of the tape or CD of the music in question that another band member had loaned me and having to listen to the songs in real time, a line at a time then pausing while trying to work out what chords they were exactly. Sometimes we'd have to give up on a song or fork out for a song book if the chords were too weird to figure out by ear.

While this was excellent musical training, it was time consuming and nearly put you off learning new stuff or even being in a covers band. These days whenever I get a chance to sit down and knock a few songs out on piano or guitar, all I have to do is fire up my "Tabs" smartphone app and it lets me search from a massive database of song chords, any of which I can save to the phone and scroll through automatically while I play. No need to print even! If I forget what way a song part sounds exactly I can click on a YouTube link in the app itself and I can see and hear the original song straight away.

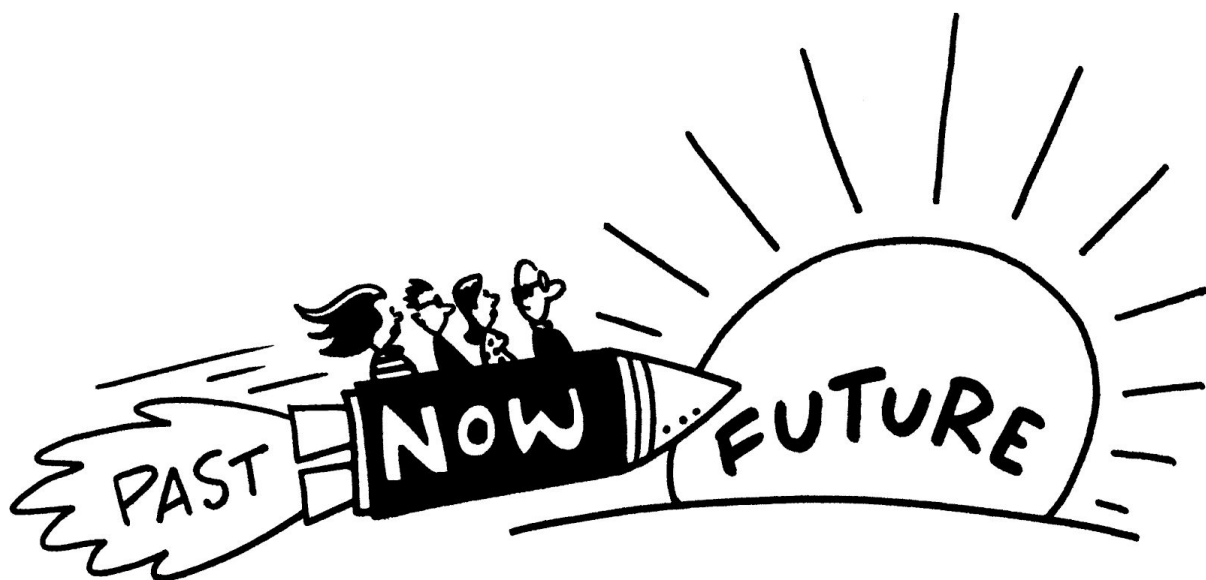


There's also another fabulous desktop/computer app called RiffStation, made in Ireland as it happens and recently acquired for €5 million by music instrument giant Fender which allows users to load a digital music file such as an MP3 and it analyses it and lets you know what chords are in it! They also have a web version at <http://play.riffstation.com> which utilizes YouTube and shows the chords, karaoke style under videos.

I think this kinda thing can only encourage young musicians and artists to learn the songs of their musical heroes and emulate their styles. They also open themselves to far more musical influences and genres and in so doing, become better artists and musicians themselves.

Digital Music Evolution

The Future



Technology

For the foreseeable near future at least, streaming is where it's at. It's a relatively new thing so in it's infancy still and with plenty of room to improve and diversify. Stream quality will most likely increase from the 300 kbps or so at the minute to near physical format quality as broadband speeds increase and playback device capability and storage increases also. We may see some new codecs or file formats emerge alongside MP3 and AAC which can make music streams sound better and play faster.

Playback devices will of course continue to evolve. Phones, MP3 players, Computers and Cameras have already merged to a single device. Wireless, high quality HiFi systems with internet access will continue to emerge and become more affordable. We may see improvements to how music is listened to on devices with

things such as surround sound and crypto currency/bitcoin integration to audio files ensuring fairer payment for all involved.



Augmented and Virtual reality is becoming a big deal now too. We may be able to see Jimi Hendrix or The Beatles live in 2017! Coming to a VR headset near you soon..

Markets & Money

As streaming services become more popular we may have to revisit the issue of what the smaller artists make out of the service financially. Especially if physical formats and downloads are fully killed off. Competition may drive prices down further for the consumer too with more flexible plans coming on stream, aimed at target markets not yet fully tapped such as much younger generations.

Traditional record labels may become a thing of the past too as small independent labels or even artists themselves realise they can do everything a label would

normally do easier, cheaper and quicker and with total artistic freedom and lack of contracts.

Backlash

There is always the possibility of a technology backlash if and when people grow tired of their electronic gadgets and the impersonality and anti-sociality of having your head buried in one constantly. Health aspects may also become an issue when people realise they may be neglecting a healthier lifestyle by consuming too much digital content.

Conclusion

At the end of the day, Music is an art form. A wonderfully diverse art form with a long and rich history. Undoubtedly the most popular art form globally and one that brings joy, healing, meaning and memories to so many people. Do you know anyone who doesn't like music or have some!? I don't. Apart from that one weird guy..there's always one. We need art to stimulate ourselves, open our minds and provide a healing contrast to our busy lives. Anything that makes it's sourcing, consumption and sharing easier is a great thing in my book.

Long may the Digital Music revolution continue and grow.

Leon

References

Images

- Google
- <https://www.iconfinder.com/>

Digital Music Review Facts & Figures

- <http://www.ifpi.org/facts-and-stats.php>

Major Players

- <http://www.imore.com/best-music-streaming-services>
- <https://www.theguardian.com/technology/2016/feb/16/which-is-the-best-music-streaming-service-spotify-apple-music>
- <http://time.com/30081/13-streaming-music-services-compared-by-price-quality-catalog-size-and-more/>
- <http://www.theverge.com/2015/6/30/8863315/streaming-music-service-comparison-apple-music>

Illegal Music

- <https://en.wikipedia.org/wiki/Napster>
- [https://en.wikipedia.org/wiki/Napster_\(pay_service\)](https://en.wikipedia.org/wiki/Napster_(pay_service))

Early Streaming Services

- <https://edu.hstry.co/timeline/history-of-music-streaming>

Music Format Timeline

- https://en.wikipedia.org/wiki/Timeline_of_audio_formats
- <http://www.mp3developments.com/article1.php>
- <https://en.wikipedia.org/wiki/MP3>
- <https://en.wikipedia.org/wiki/MiniDisc>

Financial

- <http://www.forbes.com/sites/hughmcintyre/2014/06/16/at-2-billion-views-gangnam-style-has-made-psy-a-very-rich-man/#373c76c875aa>
- <http://www.theverge.com/2015/12/7/9861372/spotify-year-in-review-artist-payment-royalties>

RiffStation

- <http://www.independent.ie/business/irish/guitar-legends-fender-snap-up-irish-music-startup-for-5m-31209591.html>

The Future

- <http://www.digitaltrends.com/features/dt10-vinyls-revived-streaming-thrives-but-can-musicians-survive/>

- <https://medium.com/@AlexMoskov/4-huge-trends-in-the-music-industry-for-2016-2017-63b6924f4c2e#.tm1nucsjs>